DEPARTMENT of ENVIRONMENTAL SERVICES Water Supply & Pollution Control Division - Biology Bureau

LAKE TROPHIC DATA

MORPHOMETRIC:

Lake: ROUND POND	Lake Area (ha):	7.49
Town: GILFORD	Maximum depth (m):	3.3
County: Belknap	Mean depth (m):	1.4
River Basin: Merrimack	Volume (m³):	101500
Latitude: 43°30'35" N	Relative depth:	1.1
Longitude: 71°20'36" W	Shore configuration:	1.13
Elevation (ft): 1643	Areal water load (m/yr)	: 2.89
Shore length (m): 1100	Flushing rate (yr ⁻¹):	2.10
Watershed area (ha): 42.2	P retention coeff.:	0.75
<pre>% watershed ponded: 0.0</pre>	Lake type:	natural

BIOLOGICAL:	6 February 1996	5 September 1995
DOM. PHYTOPLANKTON (% TOTAL) #1	TABELLARIA 35%	ANACYSTIS 40%
#2	(ALL ALGAE SPARSE)	PERIDINIUM 15%
#3		MELOSIRA 15%
PHYTOPLANKTON ABUNDANCE (units/mL)		
CHLOROPHYLL-A (µg/L)		38.41
DOM. ZOOPLANKTON (% TOTAL) #1	KERATELLA 60%	KERATELLA 62%
#2		CILIATE SPP. 27%
#3		
ROTIFERS/LITER	14	192
MICROCRUSTACEA/LITER	6	18
ZOOPLANKTON ABUNDANCE (#/L)	20	295
VASCULAR PLANT ABUNDANCE		Common
SECCHI DISK TRANSPARENCY (m)		0.7
BOTTOM DISSOLVED OXYGEN (mg/L)	3.6	7.0
BACTERIA (E. coli, #/100 ml) #1		10
#2		
#3		

SUMMER THERMAL STRATIFICATION:

not stratified

Depth of thermocline (m): None Hypolimnion volume (m^3) : None Anoxic volume (m^3) : None

CHEMICAL:	Lake: ROUND POND Town: GILFORD				
	6 February 1996		5 September 1995		1995
DEPTH (m)	1.0	2.5	1.0		2.0
pH (units)	5.0	4.8	6.5		6.6
A.N.C. (Alkalinity)	0.3	-0.1	2.0		2.2
NITRATE NITROGEN	0.06	0.07	< 0.10		< 0.10
TOTAL KJELDAHL NITROGEN	0.30	0.20	0.85		0.92
TOTAL PHOSPHORUS	0.011	0.009	0.024		0.026
CONDUCTIVITY (µmhos/cm)	24.9	26.0	21.8		21.7
APPARENT COLOR (cpu)	33	32	70		70
MAGNESIUM			0.28		
CALCIUM			2.0		
SODIUM			1.3		
POTASSIUM			< 0.40		
CHLORIDE	< 2	< 2	< 2		< 2
SULFATE			4		4
TN : TP	33	30	35		35
CALCITE SATURATION INDEX			4.2		

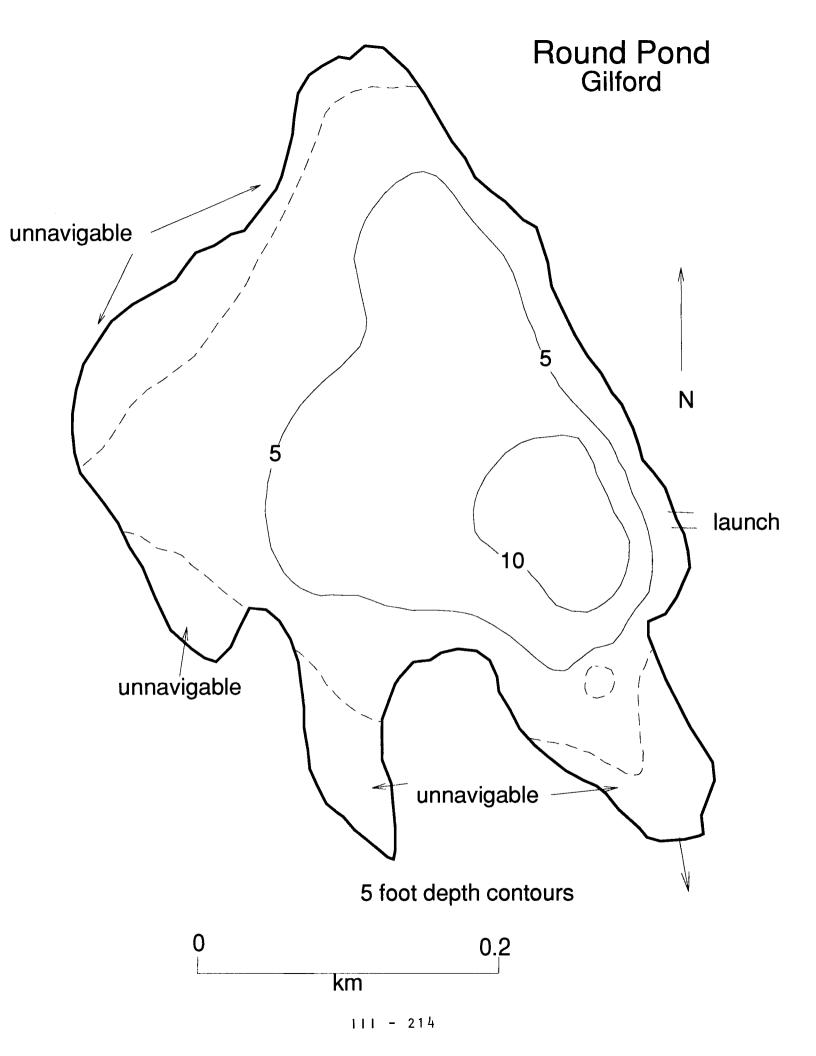
All results in mg/L unless indicated otherwise

TROPHIC CLASSIFICATION: 1995

D.O.	s.D.	PLANT	CHL	TOTAL	CLASS
**	5	3	6	14	Eutro.

COMMENTS:

- 1. This is a remote pond, located on the southwest shoulder of Belknap Mountain, that was surveyed jointly with the Fish and Game Department.
- 2. This is a naturally eutrophic pond that was green with algal growth, which reduced visibility to a little over two feet. The dominant phytoplankton was a blue-green alga.
- 3. The pond was acidic in the winter but the summer algal bloom caused an artificial rise in pH in the summer.



FIELD DATA SHEET

LAKE: ROUND POND

DATE: 09/05/95

TOWN: GILFORD

WEATHER: CLOUDY & WARM; SLIGHT BREEZE

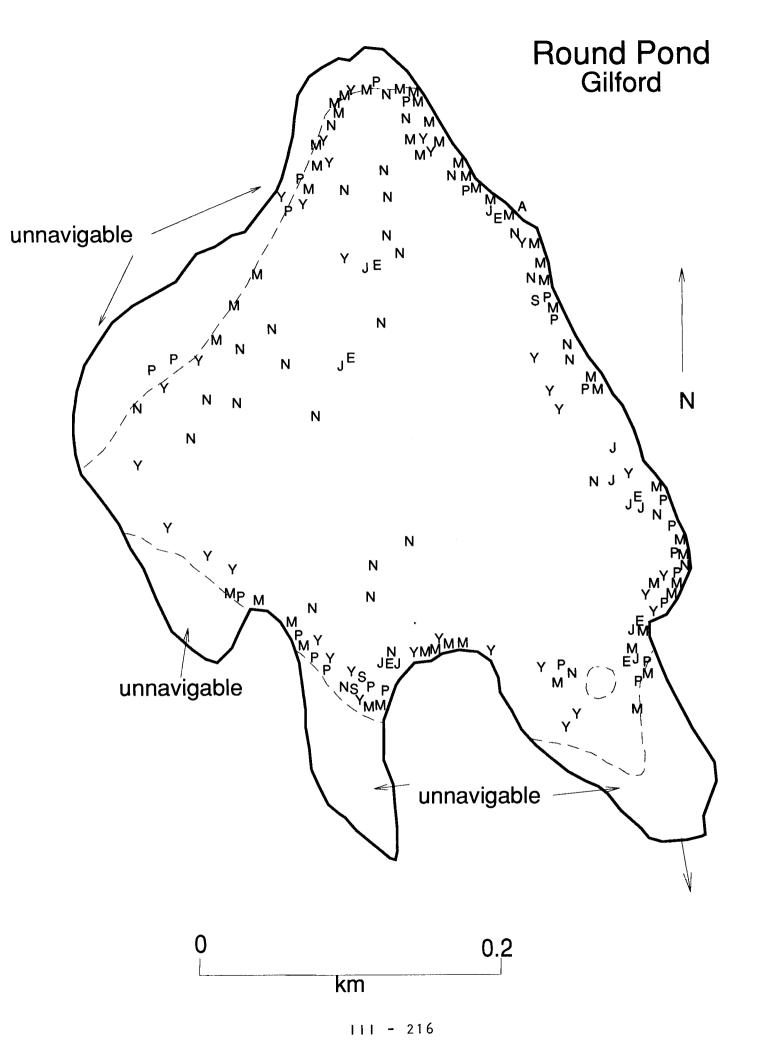
DEPTH (M)	TEMP (°C)	*DISSOLVED OXYGEN	OXYGEN SATURATION
0.1	19.9	8.9	94 %
1.0	19.5	8.8	93 %
2.0	19.0	8.3	89 %
3.0	18.5	7.0	74 %
· · · · · · · · · · · · · · · · · · ·			

SECCHI DISK (m): 0.7 COMMENTS:

BOTTOM DEPTH (m): 3.3

TIME: 1100

*Dissolved oxygen values are in mg/L



AQUATIC PLANT SURVEY

LAKE: ROUND POND	TOWN: GILFORD	DATE: 09/05/95
------------------	---------------	----------------

	ZI ROUND TOND	TOWN: GILLFORD	DATE: 09/05/95	
Key	PLANT	NAME		
кеу	GENERIC	COMMON	ABUNDANCE	
P	Pontederia cordata	Pickerelweed	Scattered	
N	Nymphaea	White water lily	Scattered	
J	Juncus	Rush	Scattered	
E	Eriocaulon septangulare	Pipewort	Scattered	
Y	Nuphar	Yellow water lily	Scattered	
M	Myriophyllum humile	Water milfoil	Common	
S	Sparganium	Bur reed	Scattered	
A	Sagittaria	Arrowhead	Sparse	
		·		
	·			

OVERALL ABUNDANCE: Common

GENERAL OBSERVATIONS:

1. Plants were common in the pond proper but the coves were unnavigable due to dense woody growth (e.g., sweet gale and leatherleaf).